

The Construct of Work Commitment: Testing an Integrative Framework

Amy Cooper-Hakim
Office Depot

Chockalingam Viswesvaran
Florida International University

This study meta-analytically examined extensive literature associated with work commitment. The primary purposes were to (a) cumulate correlations among dimensions of work commitment to see which were intercorrelated and (b) determine impact of work commitment dimensions and subdimensions on specific outcome variables (job satisfaction, job performance, turnover intentions, and turnover). Results were cumulated across 997 articles. The positive manifold of correlations suggests the presence of a common psychological construct underlying different commitment forms, with the exception of calculative, continuance, and union commitment. Most of the 94 meta-analyzed correlations were small, suggesting that concept redundancy is not a major concern. Meta-analyses of the correlations of 24 commitment constructs with 4 outcome variables suggest that different commitment forms have similar patterns of correlations with outcome variables.

Commitment is a central concept in psychology (Morrow, 1993); it can be generally defined as a willingness to persist in a course of action. Psychologists have been interested in the commitment construct for many years and within many contexts. Examples of commitment areas that have been studied include commitment to individual goals (Donovan & Radosevich, 1998), to one's friends and relatives (Sprecher, Metts, Burleson, Hatfield, & Thompson, 1995), to one's religion (C. B. Anderson, 1998), and to one's community (Greer & Stephens, 2001). Commitment in the workplace is also an important topic to consider. Given that the major portion of an individual's life revolves around organizations and work, investigations of commitment forms in the workplace are vital for understanding the psychology of human behavior.

It is not surprising that psychologists have devoted voluminous efforts to studying commitment in the workplace (A. Cohen, 2003; Morrow, 1993). Several forms of commitment have been proposed, measured, and tested for correlations with other important outcomes (e.g., job performance, job satisfaction, turnover). Organizational commitment, occupational commitment, and career saliency are some of the constructs that have been investigated in the literature. These different commitment forms have been found to have modest correlations with outcome variables such as performance and satisfaction.

The objective of this article is to investigate the overlap among the different work-related commitment forms proposed in the literature. Given the modest correlations found with single measures of commitment, suggestions have been made that constellations of different commitment forms are more predictive of behavior in organizations than are individual commitment forms (cf.

A. Cohen, 2003). However, to realize the potential of better prediction with multiple commitment forms, it is important to consider the intercorrelations among the different commitment forms. Specifically, the intercorrelations should not be so high as to result in concept redundancy (Morrow, 1993).

The concept of multiple commitment forms (A. Cohen, 2003) is also timely given changes in the workplace. The work life of individuals is no longer tied to an individual organization. In fact, individuals can anticipate changing jobs at least five times in their career (Kransdorff, 1997). The rapid globalization of business (N. Anderson, Ones, Sinangil, & Viswesvaran, 2001) also suggests that individuals have multiple forms and bases for commitment.

Increased globalization has accentuated the need to investigate multiple commitment forms. On the one hand, organizational success depends more on employees. Employees have become perhaps the only source of sustainable competitive advantage to organizations. Predicting employee satisfaction, performance, and turnover is important. Commitment, by definition, is the choice to persist with a course of action and is thus an important antecedent. On the other hand, the advent of telecommuting and technological advancement has also brought greater overlap across different forms of commitment (e.g., occupation, organization). It is no longer feasible to consider one's job in isolation of one's organization or occupation.

Theoretical Overview of Commitment in the Workplace

Two general theoretical approaches have been proposed in investigations of overlap across multiple forms of commitment. The first approach focuses on the conflicts that occur among different sources of commitment in an organization. One major area of empirical investigation along this line is the relation between organizational and occupational commitment. For example, Gouldner (1957) argued that whereas some individuals are more committed to an organization, others may stress commitment to their occupation. However, meta-analytic reviews of the literature suggest that the correlation between organizational and occupational commitment is positive (Wallace, 1993). In the conflict approach, this positive correlation is explained as reflecting compatibility between organizational and occupational values.

Amy Cooper-Hakim, Department of Human Resources Planning, Budgeting, and Analysis, Office Depot, Delray Beach, Florida; Chockalingam Viswesvaran, Department of Psychology, Florida International University.

We thank Ana Arteaga for her help in pursuit of much-needed articles. We also thank Elad Hakim for his assistance with data collection.

Correspondence concerning this article should be addressed to Amy Cooper-Hakim, Department of Human Resources Planning, Budgeting, and Analysis, Office Depot, 2200 Old Germantown Road, Delray Beach, FL 33445. E-mail: amyhakim@bellsouth.net

This idea of compatibility across different forms of commitment has been extended in the second theoretical approach to studying multiple commitments. Here, the central thesis is that the work life of an individual is a unit in its entirety (Stagner, 1954). The individual may be part of an organization, but he or she is also part of an occupation, a work group, and, perhaps, a union. The compatibility of goals across the different units is a question of an efficient organization. The extent to which this efficiency is achieved depends on the overlap across the multiple commitment forms. In this argument, the overlap is not only across forms of the commitment but also across units of commitment. Researchers in this tradition have relied on the social exchange process to explain the overlap across commitment forms and, in particular, the idea of psychological contracts (Rousseau, 1995). The social exchange process stresses that individuals reciprocate benefits and costs incurred from others with whom they interact. Attitudes are shaped by these interactions. To the extent that different commitment forms include interrelated exchanges, there is a positive manifold of correlations across the different forms. Psychological contracts are those implicit agreements made among the different stakeholders (employees, organizations, occupations, etc.).

Commitment Construct Overlap and Interaction

The need to consider several commitment forms becomes apparent when one reviews the empirical attempts to predict behavior in the workplace with single commitment forms. Mathieu and Zajac (1990) reported meta-analytic correlations among measures of organizational commitment and several workplace outcomes (e.g., job performance, turnover, and job satisfaction). Although the correlations are significant, their values are only in the .30s. Further, many meta-analytic estimates are corrected for measurement error. In the real world, to predict workplace behaviors, one has to use measures with all of the attenuating effects of unreliability. Similar conclusions can be made about the meta-analytic results pertaining to job involvement (Brown, 1996) and occupational commitment (Wallace, 1993).

Considering a constellation of commitment forms may enhance the validity of measures of work commitment to predict workplace behaviors. In fact, some attempts have been made along these lines. Gouldner (1957) introduced the concept of local-cosmopolitanism as one distinct profile of commitment based on organizational and occupational commitment. Those who were high on organizational commitment but low on occupational commitment were described as locals, whereas those who were high on occupational commitment and low on organizational commitment were termed cosmopolitans. Another attempt at integrating different commitment forms introduced the concept of dual commitment (Gordon & Ladd, 1990). Dual commitment is defined as commitment to both the organization and the workplace union. Another integration attempt was made by Blau and Boal (1987), who postulated interactions between job involvement and organizational commitment.

Although these earlier attempts at integrating types of commitment were informative, they were restricted to two forms of commitment only. Given the numerous commitment forms postulated in the extant literature, a more integrative approach is needed. Morrow (1983, 1993) was one of the first researchers to investigate the overlap across commitment forms. In an encyclopedic review

of the work commitment literature, she identified the major commitment forms. Our literature review also seeks to identify any new commitment forms that have been introduced in the literature in the past 10 years since Morrow's work. We conducted searches on PsycINFO and on the Social Science Citation Index to locate any other applicable terms. This investigation included a search of (a) all meta-analyses conducted with commitment as one of the variables and (b) any term that appeared in the literature but not in Morrow's (1983, 1993) work. Commitment forms were kept for use in the taxonomy only if there were at least 10 articles that used the specific term. The completed taxonomy used in this study is found in Table 1.

A perusal of Table 1 quickly reinforces the idea of the breadth of commitment forms investigated in the extant literature. However, the question arises as to the overlap across these commitment forms. Morrow (1993) argued that different commitment forms are like the facets of satisfaction, as found in scales such as the Job Descriptive Index (Smith, Kendall, & Hulin, 1969). Just as job satisfaction is a global unified construct within which individuals can have satisfaction with a supervisor or top management, work commitment is a unified concept within which one can view the different facets listed in Table 1.

In fact, Morrow (1993) suggested that some of the forms listed in Table 1 could very well be redundant. She identified five major facets (just as there are five facets in the Job Descriptive Index). The five commitment forms suggested by Morrow (1993) are job involvement, affective organizational commitment, continuance organizational commitment, career commitment, and work ethic endorsement. Morrow (1993) suggested the development of an instrument to assess this global construct of work commitment using these five dimensions. Thus, Morrow (1993) stressed the integration of five of the six forms listed in Table 1 to develop a global measure of commitment.

Table 1
Proposed Taxonomy of Work Commitment Terms

Dimension	Subdimension
Work commitment	
Organizational commitment	Calculative organizational commitment Attitudinal organizational commitment Continuance organizational commitment Affective organizational commitment Normative organizational commitment
Job involvement	
Career commitment	Professional commitment Occupational commitment Career salience Career involvement Professionalism Affective occupational commitment Continuance occupational commitment Normative occupational commitment
Work ethic endorsement	Protestant work ethic endorsement Work ethic Work involvement Employment commitment
Union commitment	Union loyalty Responsibility to the union Willingness to work for the union Belief in unionism

Measurement of Global Commitment and Its Dimensions

Attempts have been made to develop such measures. Blau, Paul, and John (1993) proposed a general index of commitment by factor analyzing several scales belonging to different commitment forms listed in Table 1. T. E. Becker (1992) argued that a distinction ought to be made between forms of commitment (organization, occupation, etc.) and motivational bases of commitment (affective, calculative, etc.). A. Cohen (1993) constructed a measure in which commitment to organization, occupation, union, and job were assessed with the same set of nine items. The nine items were designed to tap affiliation, identification, and moral involvement with each of the forms. Meyer and Allen (1997) developed another measurement framework, in which the forms included the organization, top management, work unit, unit manager, work team, and team leader.

A first step in developing such measures of global commitment is to identify commitment forms that are not redundant. Concept redundancy has been noted as a major problem in this literature (Morrow, 1993). Even if researchers can make fine-grained theoretical distinctions, the question arises as to whether research participants also do so. Singh and Vinnicombe (2000) reported data that suggest that even educated respondents may not distinguish among some of the concepts listed in Table 1. Morrow, Eastman, and McElroy (1991) found that the failure to make distinctions is a function of rater naivete. Morrow et al. (1991) concluded that even for well-educated and experienced participants, some of the concepts are redundant. Thus, it is critical to assess the overlap across the concepts listed in Table 1 and to determine which concepts have the least overlap in meaning for scale respondents.

Three approaches can be used to make such a selection. These are not mutually exclusive, and, in fact, a combination of the three is needed to advance understanding. The first approach is to use multiple measures of each concept listed in Table 1, administer them to a representative sample, and factor analyze the responses to identify unique dimensions. Given the number of different concepts, it is exceedingly difficult, if not impossible, to obtain such a data set.

The second approach is to cumulate the correlations reported among the different concepts listed in Table 1 using meta-analyses (Hunter & Schmidt, 2004). Although all correlations may not be reported in the same study, by cumulating the correlations across studies, it may be feasible to investigate the intercorrelations among the different forms. A meta-analytic approach appears to be appropriate here, as it is extremely difficult and impractical to administer so many measures to the same sample.

Viswesvaran and Ones (1995) listed the steps involved in combining psychometric meta-analyses and structural equations modeling to test theories. Schmidt (1992) as well as Cooper and Hedges (1994) described how meta-analyses can be used to detect broader patterns in the literature that cannot be discerned in individual studies. In a meta-analysis, we obtain the correlation among measures of the commitment forms listed in Table 1, but we do not have the item-level data necessary to make scale refinements. This approach can identify pairs of commitment forms in Table 1 that are redundant, and doing so is the major focus of this study. Further, the increased sample size greatly mitigates the effects of sampling error and facilitates detection of moderator effects

(Aiken & West, 1993). The use of heterogeneous samples increases the generalizability of the results (Ganster, Fusilier, & Mayes, 1986).

External Correlates of Commitment Forms

In addition to meta-analytically investigating the correlations among the concepts listed in Table 1, we use another approach to investigate the external correlates of the different forms of commitment listed in Table 1. (This is the third approach referenced above.) There are four outcomes that we focus on: job performance, job satisfaction, turnover intentions, and turnover. This examination of interrelations among various commitment forms and the impact of each form on four outcome variables parallels what Nunnally and Bernstein (1994, p. 104–105) referred to as the internal and cross-structure analysis of a construct, respectively.

Conceptual Definitions of the Different Forms of Commitment

Before we describe the methodology used and results obtained, we provide definitions of the different forms of commitment found in the literature (and summarized in Table 1).

Organizational commitment has been defined as “the strength of an individual’s identification with and involvement in a particular organization” (Porter, Steers, Mowday, & Boulian, 1974, p. 604). A person who is high in organizational commitment wants to (a) stay with his or her organization, (b) work for the good of the organization, and (c) adhere to the prominent values of the organization (Mowday, Steers, & Porter, 1979; Porter et al., 1974).

Researchers have identified a number of different commitment forms that describe specific aspects of organizational commitment (e.g., Meyer & Allen, 1984; Porter et al., 1974). *Attitudinal organizational commitment*, which occurs among employees most frequently, is the degree of involvement that a person has with his or her employing organization (Porter et al., 1974). *Calculative organizational commitment*, defined by Hrebiniak and Alutto (1972), occurs when a person is committed to an organization because leaving the organization would result in him or her not receiving needed money or benefits (sometimes referred to as side bets) that he or she would get by remaining with the company (e.g., retirement plan; cf. H. S. Becker, 1960). People with high attitudinal organizational commitment stay with a company because they desire to do so, whereas employees with a calculative commitment stay with a company because they have to get money and related benefits (cf. Meyer, Allen, & Gellatly, 1990). A person might start out with calculative organizational commitment when beginning work with an organization but, over time, become attitudinally committed to the organization. Alternatively, a person might join an organization because of attitudinal commitment but continue to stay because of accumulated side bets resulting in calculative organizational commitment. Therefore, these commitment forms are indeed intertwined (Mathieu & Zajac, 1990).

The above two commitment forms are similar to the forms proposed by Meyer and Allen (1984), namely *affective organizational commitment* and *continuance organizational commitment*. Similar in meaning to attitudinal commitment, affective organizational commitment deals with how closely a person relates to and

is interested in being a part of his or her organization (Meyer & Allen, 1984). Meyer and Allen (1984) devised this construct to be used in place of or in addition to a measure of attitudinal commitment when organizational commitment is measured (cf. Morrow, 1993). It is important to note that although the terms *affective commitment* and *attitudinal commitment* are similar, we explore them separately in this work in an attempt to follow the framework provided by Morrow (1993). Further, by analyzing them separately, we are able to test the extent of their actual overlap. Therefore, in this study, we keep affective and attitudinal commitment separate. Continuance commitment is quite similar to calculative commitment, although the term also considers how easy it is to leave one organization for another job (Meyer & Allen, 1984). This term was devised to use in place of a measure of calculative commitment (cf. Morrow, 1993). As with attitudinal and affective commitment, both calculative and continuance commitments are analyzed separately in this study. Finally, *normative organizational commitment* occurs when a person becomes committed to an organization because he or she feels that this is how he or she ought to behave (N. J. Allen & Meyer, 1990).

Lodahl and Kejner (1965) introduced the term *job involvement*. Job involvement is defined as the degree to which an employee psychologically relates to his or her job and to the work performed therein. It is often "a function of how much the job can satisfy one's present needs" (Kanungo, 1982, p. 342). Job involvement is also indicated by the way that job performance impacts an employee's self-esteem (Lodahl & Kejner, 1965). One who has high job involvement is personally influenced by the activities at work (cf. Cook, Hepworth, Wall, & Warr, 1981). In addition, people who are promoted from within a company often have more job involvement than people who are chosen externally (cf. Dailey & Morgan, 1978). Some researchers (cf. Farrell & Rusbult, 1981; Morrow, 1993) have referred to these forms of work commitment as *job commitment*. Therefore, in this work, we treat any studies that use the term *job commitment* as referring to job involvement.

The term *career commitment* encompasses one's commitment or dedication to one's career, profession, or occupation (cf. Blau, 1985; Morrow & Goetz, 1988). We use the term *career commitment* to include each of these, specifically because *career*, *profession*, and *occupation* are often viewed as synonyms (cf. Lee, Carswell, & Allen, 2000). However, it is important to note the distinction among these constructs. Specifically, *professional commitment* refers to a person's desire to (a) agree with and adhere to the prominent values of the profession, (b) work for the good of the profession, and (c) continue working in the profession (Aranya, Pollack, & Amernic, 1981). Career commitment, conversely, is described by the advancement of individual vocational goals and by the drive and commitment associated with completing these goals (Colarelli & Bishop, 1990). Career commitment is important because it enables an employee to develop the needed skills and relationships to have a profitable career, regardless of the organization within which he or she is employed (Colarelli & Bishop, 1990). *Occupational commitment* is defined as "a psychological link between a person and his or her occupation that is based on affective reaction to that occupation" (Lee et al., 2000, p. 800).

A number of commitment forms fall within this broad category of career commitment. The first of these is *career salience*. Career salience is defined as the significance that an employee places on his or her career (Greenhaus, 1971). In addition to being used as a

synonym for career commitment, professional commitment has also been dubbed career salience (Wallace, 1993). *Career involvement* is defined as one's degree of identification with one's career (Gould, 1979). It is also considered the attitude with which one views one's career (Gould, 1979).

The next commitment form to be considered is *professionalism*. Professionalism is "the extent to which one identifies with one's profession and accepts its values" (Morrow & Goetz, 1988, p. 93). One who exhibits a high degree of professionalism is more likely to put new topics or courses of action into practice (Damanpour, 1991). R. H. Hall (1968) noted five indicators of professionalism: (a) the use of the profession and of peers within the profession when making decisions, (b) the belief that the profession contributes meaningfully to the community, (c) faith that the profession should be controlled by people within the profession, (d) the belief that fellow members of the profession see the profession as their mission in life, and (e) an assumption that those within the profession are allowed to conduct various endeavors without needing others' consent.

The last three commitment forms to be discussed in relation to career commitment are *affective occupational commitment*, *continuance occupational commitment*, and *normative occupational commitment*. Meyer, Allen, and Smith (1993) developed their organizational commitment model to focus on occupational commitment. Therefore, these commitment forms are very similar in meaning to their organizational commitment counterparts. Specifically, affective occupational commitment applies when a person stays with his or her occupation because he or she desires to do so (cf. Irving, Coleman, & Cooper, 1997; Meyer & Allen, 1984). With continuance occupational commitment, a person is committed to his or her occupation because it would be difficult to leave the occupation for another occupation and because leaving the occupation would result in the person not receiving needed money and other benefits (cf. Irving et al., 1997; Meyer & Allen, 1984). With normative occupational commitment, people stay with their occupation because they feel that they ought to do so (cf. N. J. Allen & Meyer, 1990; Irving et al., 1997). Confirmatory factor analysis indicated that affective, continuance, and normative occupational commitment are considered distinct subdimensions in various occupations (Irving et al., 1997). The general trend in the literature does indicate that these subdimensions are positively correlated.

Work ethic endorsement is the degree to which an employee "believes in the importance of work itself" (Morrow, 1993, p. 1). This broad term encompasses the following more narrow forms: *Protestant work ethic endorsement*, *work ethic*, *work involvement*, and *employment commitment*.

Protestant work ethic endorsement, the first of the many forms in this category, was proposed by Mirels and Garrett in 1971. Its use in psychology is an extension of the work on the Protestant work ethic by Weber (1905). It deals with one's belief in diligent pursuit of work and monetary gain while ignoring one's own self-regard and while staying away from distractions (Furnham, 1990; Morrow, 1993). Mirels and Garrett (1971) indicated that jobs that ascribe to strict rules and regimented behavior (e.g., army officer, police officer) are more strongly correlated with Protestant work ethic endorsement than are jobs that are more artistic or creative (e.g., artist, music teacher).

Work ethic deals with one's view that dedication to work itself is positive and necessary if one is to succeed in society (Buchholz, 1976). It is positively correlated with Protestant work ethic endorsement (Furnham, 1990). In fact, the definition of work ethic mirrors much of the definition of Protestant work ethic endorsement (cf. Buchholz, 1976; Dickson & Buchholz, 1979). Buchholz (1976) defined work ethic as follows:

Work is good in itself and bestows dignity on a person. Everyone should work and those who do not are not useful members of society. By working hard a person can overcome every obstacle that life presents and make his own way in the world. Success is thus directly linked to one's own efforts and the material wealth a person accumulates is a measure of how much effort he has expended. Wealth should be wisely invested to earn still greater returns and not foolishly spent on personal consumption. Thus thrift and frugality are virtues to be practiced in the use of one's material possessions. (p. 1179)

Work involvement is defined as the degree to which one relates to work itself (Kanungo, 1982). It is an idea that one has about the importance of work in one's life (Kanungo, 1982). Finally, employment commitment is defined as the extent to which one desires to be employed (Jackson, Stafford, Banks, & Warr, 1983). It is also determined by how dedicated one is to the labor market (Jackson et al., 1983). Employment commitment serves as a moderator between status of employment and psychological anguish. Specifically, people with higher employment commitment "showed greater change in distress scores as a result of change in employment status" (Jackson et al., 1983, p. 532).

In her 1983 article on work commitment, Morrow included *union commitment* in her framework as one of the many dimensions of work commitment. However, because of the lack of continued research in this area, she did not include union commitment in the latest framework provided (Morrow, 1993). Regardless, we included union commitment, which refers to how dedicated one is to one's union, in the present study to ensure the most complete coverage of the work commitment construct (cf. Gordon Philpot, Burt, Thompson, & Spiller, 1980).

People are generally more committed to their union when the union is fighting for workers' rights and the like. In fact, union commitment is often based on the type and amount of benefits that the union can bestow on its members (Gordon et al., 1980). Also, union commitment can change quite frequently, depending on how often a person joins a new organization, profession, or job (cf. Morrow, 1983). Commitment is needed to guarantee the basic functioning of a union (Gordon et al., 1980).

Union commitment is broken into four forms, namely, *union loyalty*, *responsibility to the union*, *willingness to work for the union*, and *belief in unionism* (Gordon et al., 1980, p. 487). According to Gordon et al. (1980), union loyalty refers to the degree of allegiance that one has toward one's union. Responsibility to the union represents the desire that one has to complete daily requirements and responsibilities to maintain the union. Willingness to work for the union refers to the desire one has to use one's spare time to benefit the union. Finally, belief in unionism refers to "the member's belief in the concept of unionism" (Gordon et al., 1980, p. 487). The literature indicates that these four forms are positively correlated.

Method

Database

We conducted computerized searches on PsycINFO and on the Social Science Citation Index to identify articles to be used for the meta-analyses. We found approximately 10,000 articles containing any of the following 26 keywords: *work commitment*, *organizational commitment*, *calculative organizational commitment*, *attitudinal organizational commitment*, *continuance organizational commitment*, *affective organizational commitment*, *normative organizational commitment*, *job involvement*, *job commitment*, *career commitment*, *professional commitment*, *occupational commitment*, *career salience*, *career involvement*, *professionalism*, *affective occupational commitment*, *calculative occupational commitment*, *normative occupational commitment*, *local-cosmopolitanism*, *work ethic endorsement*, *Protestant work ethic endorsement*, *work ethic*, *work involvement*, *employment commitment*, *union commitment*, and *unionism*.

Additionally, we snowballed the references from any applicable article or book (e.g., Brown, 1996; Mathieu & Zajac, 1990; Morrow, 1993) to identify other potential articles. We identified conference papers by a search of recent annual conferences and searched dissertation abstracts for relevant publications.

A total of 997 articles were included in the database. A complete list is available on request. We used certain criteria when designating articles for inclusion: (a) The study needed to use employees in an actual organization, and (b) there had to be evidence of at least either 2 of the 26 keywords (e.g., *organizational commitment*, *job involvement*) used in the study or 1 of the 26 keywords and one of the outcome variables (i.e., job satisfaction, job performance, turnover intentions, or turnover) used in the study. This work covered all articles through October 2003.

Procedure

After gathering all of the relevant articles, we extracted the needed information from each article. This included the types of measures of the variables used in each study, the correlations among relevant measures, their corresponding sample sizes, and the reliabilities of the measures.

It is important to note that we coded globally the outcome variables of job satisfaction, job performance, turnover intentions, and turnover. This means that, for example, facets of job satisfaction were not retained. Job satisfaction and job performance were coded such that a high number indicated a positive value (e.g., higher job satisfaction, greater job performance). Turnover intentions and turnover were coded such that a high number indicated greater turnover intentions or a larger amount of turnover. Reverse coding took place when needed for all applicable variables.

Several other coding decisions need to be mentioned. We made a number of decisions to determine whether a particular article should be tagged as appropriate for inclusion in the meta-analysis. Only articles that reported correlations were used in the meta-analysis. Therefore, if there were beta weights but no correlations reported, then the article was not used in this study. We coded all cross-lagged correlations. We did not include articles with ranges of correlations. When there was an option to code for a scale or a factor, we always coded the scale (e.g., Drasgow & Miller, 1982). We included studies that reported interitem correlations by forming a composite of all scale items (cf. Nunnally & Bernstein, 1994) and then taking the appropriate correlations. When participants responded to multiple measures of the same commitment form, we formed a composite across the measures. (Independence of samples was maintained.) However, in the few instances in which longitudinal data were provided, we took the correlation at each time as an independent sample. In the following sections, we discuss general coding decisions and coding decisions pertaining to the dimensions of work commitment.

General Coding Decisions

Participants. Studies were included only if they used actual employees in an organization. We did not use student samples in which participants enacted a simulation (i.e., T. D. Allen & Russell, 1999; Zellars & Kacmar, 1999). Similarly, articles in which nurses read scenarios and voted on a hypothetical employee's level of performance were not included (i.e., Grover, 1993).

A student's academic job involvement, academic commitment, and academic performance were not included as usable terms in this study. We felt that the studies used should only deal with one's level of commitment to one's work organization, involvement with one's job, and so forth. However, a professor's commitment to his or her university was coded, as this was his or her place of employment. Similarly, teacher trainees' career commitment and job satisfaction were also deemed appropriate to code (e.g., Lam, Foong, & Moo, 1995).¹

Outcome variables. Although *pride in work* is not generally the same as job satisfaction, it was coded as such for an article by Putti, Aryee, and Liang (1989). This was because the term was specifically defined as the feeling of satisfaction that an employee derived from work. *Quality of work life* was coded as job satisfaction in an article by Higgins, Duxbury, and Irving (1992). According to the article, job satisfaction is a part of the broader term *quality of work life*. *Outcome satisfaction* was coded as job satisfaction for an article by Kim and Mauborgne (1993), on the basis of the definition provided.

Satisfaction with training was not coded as job satisfaction. The specific article under consideration (i.e., Mathieu, 1988) dealt with Army and Navy Reserve Officers' Training Corps (ROTC) cadets' satisfaction with ROTC training and commitment to the ROTC in general. We coded *oversatisfaction* as a measure of performance (Shore & Martin, 1989). Oversatisfaction reflected positive performance in this article.

Problem articles. There were two articles by Ting (1996, 1997) that appeared to use the same data set, namely the Survey of Federal Employees. We decided to use only one article in the meta-analysis. We chose to include the study with the larger sample size (Ting, 1996). There was a problem with the matrix of an article written by Ko, Price, and Mueller (1997). Therefore, this article was not used in the meta-analysis.

Extraneous commitment terms. There were a number of articles that mentioned names for commitment terms not included in the taxonomy. Specifically, these were *behavioral commitment*, *moral commitment*, *value commitment*, *compliance*, *internalization*, *identification*, and *instrumental commitment*. We initially attempted to identify the terms as facets with similar meanings found within the taxonomy (e.g., behavioral commitment might be coded as continuance commitment). However, these additional terms did not conform to the construct domains. Therefore, articles that cited commitment terms other than those that easily (and cleanly) fit into the construct domain were not included in the analysis. Those terms that could fit easily into the construct domain were included in the analysis in the most general sense (e.g., as organizational commitment and not as one of the various facets of organizational commitment).

Coding Decisions: Specific Dimensions

Organizational identification and *organizational loyalty* were coded as organizational commitment. In an article by Indiresan (1975), *job saliency* was determined to be similar to job involvement. Therefore, the correlation between job saliency and job satisfaction was coded as if it were the correlation between job involvement and job satisfaction. *Job dedication* was coded as job involvement (Van Scotter & Motowidlo, 1996). We chose not to use a study in which job involvement was measured by the number of hours that an employee worked. Also, we decided not to include a study in which constructs were measured at the group or organizational level (Hall & Lawler, 1970). *Committedness to the field of practice* was coded as career commitment (Ben-Sira, 1986). *Military ethos* was coded as work ethic, as it was described as a measure of professional military values

(i.e., Guimond, 1995). *Work role centrality* and *central life interest* were coded as either job involvement or work ethic endorsement, depending on the definition provided in the article (e.g., Elfering, Semmer, & Kalin, 2000). When an article dealt with a facet of Protestant work ethic endorsement, we coded each facet as Protestant work ethic endorsement, as we do not specifically explore the facets of subdimensions in this meta-analysis.

There was only one article that used the term *employment commitment* as a construct of interest. Therefore, we coded employment commitment as work commitment (Wanberg, Kanfer, & Rotundo, 1999). Hence, any analyses with employment commitment were dropped.

The term *union instrumentality* was generally not considered to be the same as union commitment. However, it was coded as general union commitment for an article by Fullager (1986), because it was specifically described as a union commitment variable. In an article by Shore, Tetrick, Sinclair, and Newton (1994), the term *general attitude toward unions* was considered to be similar to belief in unionism.

Analysis

The majority of the studies used in the meta-analysis addressed organizational commitment or one of its subdimensions. Job satisfaction was the most popular outcome variable used in the studies. The different commitment measures that were included in the database along with the frequencies of their use are listed in Table 2. The scales used to measure the outcome variables in this study are found in Table 3. In general, measures are included in the tables only if they are listed five or more times in the data set for a particular commitment form. However, in instances in which the measure with the greatest frequency for a commitment form was found fewer than five times in the data set, this measure is still included in the table.

Once the correlations were coded, artifact-distribution-based meta-analyses (Hunter & Schmidt, 2004) were used to estimate the correlations for each combination of the commitment forms listed in Table 1. In each meta-analysis, we corrected for sampling error and measurement error in the two variables being correlated. Artifact distributions, composed of alpha coefficients, were used in the corrections. The alpha coefficients were obtained from the individual studies in the data set.

The meta-analytic results were summarized in terms of the following parameters: the number of samples meta-analyzed (k), the total sample size across the analyzed samples (N), the sample size-weighted mean observed correlation (M_r), the sample size-weighted observed standard deviation of the mean (SD_r), the mean correlation corrected for unreliability in the two measures correlated (ρ), the standard deviation associated with this corrected correlation (SD_ρ), and the 95% confidence interval around the observed mean, computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$.

As explained below, for testing our hypotheses (e.g., concept redundancies), we rely on the mean correlation corrected for unreliability. The additional parameter estimates are provided only to give a more complete picture of the meta-analytic results. Given that all our corrections are linear (reliability correction is linear; range restriction and dichotomization corrections are not), the estimates reported can be used to compute other parameters of interest. For example, the sampling error variance could be computed via the sample size-weighted mean observed correlation, the total sample size, and the number of samples meta-analyzed. Along with the sample size-weighted observed standard deviation of the mean, this can

¹ An article with a convenience sample (i.e., Furnham, 1997) was included in which 85% of the participants labeled themselves as workers and 15% labeled themselves as students (but not necessarily as nonworkers). This article was included in the data set because it was possible for the remaining 15% of the participants to have a job. In addition, because 85% of the participants definitely worked for an organization, it seemed fitting to keep the article.

Table 2
Most Frequently Used Commitment Measures

Dimension and subdimension	Measure
Organizational commitment	Mowday et al., 1979 (461); Porter et al., 1974 (221); Porter & Smith, 1970 (110); Mowday et al., 1982 (64); O'Reilly & Chatman, 1986 (22); Cook & Wall, 1980 (24); Porter et al., 1976 (17); Hrebiniak & Alutto, 1972 (15); Meyer & Allen, 1997 (13); Mael, 1988 (9); Mael & Ashforth, 1992 (9); Meyer & Allen, 1991 (6); Alutto et al., 1973 (6); DeCotiis & Summers, 1987 (6); Jorde-Bloom, 1985 (5); Steers, 1977 (5); Tett & Meyer, 1993 (5)
Calculative organizational commitment	Hrebiniak & Alutto, 1972 (11); Alutto et al., 1973 (7)
Attitudinal organizational commitment	Mowday et al., 1979 (12)
Continuance organizational commitment	Meyer & Allen, 1984 (57); N. J. Allen & Meyer, 1990 (58); Meyer & Allen, 1991 (41); Meyer & Allen, 1997 (18); Meyer et al., 1993 (16)
Affective organizational commitment	Meyer & Allen, 1984 (79); N. J. Allen & Meyer, 1990 (71); Meyer et al., 1993 (28); Meyer & Allen, 1997 (19); O'Reilly & Chatman, 1986 (11); Meyer & Allen, 1991 (29); Mowday et al., 1979 (17); Mowday et al., 1982 (16); T. E. Becker et al., 1996 (5)
Normative organizational commitment	N. J. Allen & Meyer, 1990 (54); Meyer & Allen, 1991 (13); Meyer & Allen, 1997 (13); Meyer et al., 1993 (9); Wiener & Vardi, 1980 (6)
Job involvement	Lodahl & Kejner, 1965 (307); Kanungo, 1982 (150); Patchen, 1970 (13); Lawler & Hall, 1970 (12); Saleh & Hosek, 1976 (9); Kanungo, 1979 (6); Cook et al., 1981 (5)
Career commitment	Blau, 1985 (30/8); Blau, 1988 (7); Mowday et al., 1979 (6); Alutto et al., 1973 (5); R. H. Hall, 1968 (5); Regoli & Poole, 1980 (5)
Career salience	Greenhaus, 1971 (8)
Career involvement	Gould, 1979 (7)
Professionalism	R. H. Hall, 1968 (4)
Affective occupational commitment	Blau, 1988 (2); Meyer et al., 1993 (2); Gade et al., 2003 (2)
Continuance occupational commitment	Adapted from Meyer et al., 1993 (2)
Normative occupational commitment	Adapted from Meyer et al., 1993 (2)
Work ethic endorsement	Dubin, 1956 (6); Cook et al., 1981 (5)
Protestant work ethic endorsement	Blood, 1969 (26); Mirels & Garrett, 1971 (20)
Work ethic	Buchholz, 1977 (3)
Work involvement	Kanungo, 1982 (16)
Union commitment	Gordon et al., 1980 (8); Gordon & Ladd, 1990 (5)
Union loyalty	Gordon et al., 1980 (33)
Responsibility to the union	Gordon et al., 1980 (20)
Willingness to work for the union	Gordon et al., 1980 (20)
Belief in unionism	Gordon et al., 1980 (15)

Note. The frequency with which each study was included in the data set is given in parentheses.

be used to compute the percentage of observed variance attributable to sampling error variance. Given that all corrections are linear, the standard deviation associated with the corrected correlation can be used to compute the residual variance along with the sample size-weighted mean observed correlation and the mean correlation corrected for unreliability. Given the residual variance, observed variance, and sampling error variance, one can easily compute the variance attributable to unreliability differences across studies.

The summary statistics we present in the tables provide a complete and comprehensive summary of the meta-analyses. However, our focus here is only on the mean correlation corrected for unreliability. The main objective is to test whether the different concepts listed in Table 1 are redundant. A comprehensive test would require a complete correlation matrix and a factor analysis of its contents (Viswesvaran & Ones, 1995). However, there were many empty cells in the correlation matrix. Another test would examine the corrected correlations (i.e., the estimated true score correlation). If the correlation between any two of them approaches a high value, they are redundant. In short, we test the hypothesis that $\rho = 1.0$.

To test the hypothesis $\rho = 1.0$, Viswesvaran, Schmidt, and Ones (2002) proposed to correct the confidence intervals around the observed mean for unreliability. Viswesvaran et al. (2002) used these methods to test whether supervisors and peers rated the same dimension of job performance. (See also Hunter & Schmidt, 1990, 2004, for further details of correcting the end points of a confidence interval of observed means and how that is equivalent to forming a confidence interval around the mean correlation corrected for unreliability.)

However, to assess whether two commitment forms listed in Table 1 are redundant, the estimated true score correlation between them need not be 1.00. In fact, a correlation as high as .80 suggests a considerable amount of overlap. Further, Schmidt and Hunter (1997) cautioned that excessive reliance on significance testing is misleading (see also J. Cohen, 1994). In fact, Morrow (1983) stated that "in the case of work commitment, redundancy would be evidenced by high positive intercorrelations. . . . These correlations should be particularly high, say in the .60 to .80 range" (p. 496). This is the approach we take in the meta-analysis. In summarizing our results, we indicate how many of the meta-analyzed correlations were greater than .60, and for those higher than .60 we conduct further analy-

Table 3
Most Frequently Used Measures of Outcome Variables

Outcome variable	Measure
Job satisfaction	Smith et al., 1969 (275); Weiss et al., 1967 (104); Hackman & Oldham, 1975 (75), 1980 (32); Brayfield & Rothe, 1951 (33); Warr et al., 1979 (26); Quinn & Staines, 1979 (20); Kunin, 1955 (18); Churchill et al., 1974 (16); Cammann et al., 1983 (15); Hackman & Lawler, 1971 (14); Hatfield et al., 1985 (13); Dunham et al., 1977 (12); Andrews & Withey, 1976 (10); Heneman & Schwab, 1985 (10); Ironson et al., 1989 (10); Seashore et al., 1982 (9); Spector, 1997 (9); Hoppock, 1935 (9); Kanungo et al., 1975, 1976 (8); Pestonjee, 1973 (8); Roznowski, 1989 (8); Taylor & Bowers, 1972 (8); Greenhaus et al., 1990 (7); Cammann et al., 1979 (6); Cook et al., 1981 (6); McNichols et al., 1978 (6); Quinn & Shepard, 1974 (6); Jorde-Bloom, 1985 (5)
Job performance	Behrman & Perreault, 1982 (15); Williams & Anderson, 1991 (6)
Turnover intent	Bluedorn, 1982 (36); Cammann et al., 1979 (22); Cammann et al., 1983 (17); Colarelli, 1984 (12); Mobley, 1977 (12); Mobley et al., 1979 (12); Seashore et al., 1982 (9); Mobley et al., 1978 (8); Landau & Hammer, 1986 (6); Lyons, 1971 (6); Hanisch & Hulin, 1990, 1991 (6)

Note. The frequency with which each study was included in the data set is given in parentheses.

ses—that is, we test whether they provide different correlations with the four outcome variables investigated here.

Results

Table 4 summarizes the artifact distributions of the variables used. The table includes the mean and standard deviation of both frequency-weighted and sample size-weighted reliabilities as well as those for the square root of reliabilities for each of the constructs used in the meta-analyses. The frequency-weighted mean is a simple average taken by adding up all of the reliability estimates and dividing by the total number of estimates. With the sample size-weighted mean, however, the reliability estimate for each study is weighted on the basis of the sample size for that particular study. The benefit of using a frequency-weighted mean and standard deviation is that one study with a large sample size will not skew the results, because each reliability estimate is weighted the same. However, the sample size-weighted mean and standard deviation provide a more accurate figure (Viswesvaran, Ones, & Schmidt, 1996). Hence, both are included. The square root of reliability is also included, as it is needed to conduct the meta-analysis.

The mean frequency-weighted reliability ranged from .70 (for Protestant work ethic endorsement) to .88 (for union loyalty). The mean sample size-weighted reliability ranged from .67 (for Protestant work ethic) to .87 (for affective occupational commitment and union loyalty). The mean frequency-weighted square root of reliability varied from .83 (for Protestant work ethic) to .94 (for union loyalty). The mean sample size-weighted square root of reliability ranged from .81 (for Protestant work ethic) to .93 (for affective occupational commitment, union commitment, and union loyalty). It is interesting to note the huge number of samples on which these estimates have been computed.

Tables 5 through 10 summarize the intercorrelations among the different commitment constructs. Given 24 commitment constructs, one could estimate 276 intercorrelations. However, we found estimates for only 94 of the bivariate relations. Table 5 summarizes the correlations among organizational commitment forms and job involvement, whereas Table 6 provides the overlap

among job involvement, career commitment, and work ethic endorsement forms. Correlations between organizational commitment and career commitment forms are summarized in Table 7. Those correlations involving union commitment, job involvement, and career commitment variables are summarized in Table 8. We present the correlations between organizational commitment and work ethic endorsement, union, and career commitment in Table 9. Table 10 contains correlations of organizational commitment sub-dimensions with work ethic endorsement and union commitment.

Although only 94 could be estimated, we found several studies focusing on a particular combination of variables. For example, there were 142 samples reporting a correlation between job involvement and organizational commitment. It is obvious that some forms of commitment have been more thoroughly researched, and this may account for the more focused meta-analyses that have been reported in the literature (e.g., Wallace, 1993). Our analysis of the work commitment domain provides a snapshot of areas in which future empirical research would be profitable.

The second salient point in these tables is the positive manifold of correlations. Of the 94 estimated true score correlations, only 10 were negative. These included the correlation of job involvement with union commitment; calculative organizational commitment with career commitment and career salience; continuance organizational commitment with career commitment, union loyalty, responsibility to the union, and willingness to work for the union; normative organizational commitment with union commitment; affective organizational commitment with responsibility to the union; and organizational commitment with responsibility to the union. Of these, only the negative correlations between continuance organizational commitment and career commitment and between organizational commitment and responsibility to the union were based on more than 5 samples, which suggests some degree of stability and generalizability. Thus, there is a positive manifold of correlations across the different commitment forms.

The third feature in Tables 5 through 10 is that, of the 94 meta-analyses, only 1 reported a mean correlation corrected for unreliability greater in magnitude than .80. Further, we found that only 11 more of the 94 estimates were above .60. However, of the

Table 4
Reliabilities Table

Variable	<i>k</i>	<i>n</i>	Reliability				Square root reliability			
			Frequency		Sample		Frequency		Sample	
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Work commitment	4	720	.81	.0420	.82	.0361	.90	.0234	.90	.0201
OC	991	449,121	.85	.0747	.85	.0679	.92	.0425	.92	.0384
Attitudinal OC	17	13,624	.84	.0671	.81	.0393	.92	.0367	.90	.0215
Calculative OC	21	3,994	.82	.0678	.81	.0607	.91	.0376	.90	.0336
Affective OC	311	121,467	.83	.0590	.83	.0616	.91	.0327	.91	.0341
Continuance OC	204	75,008	.76	.0713	.77	.0757	.87	.0413	.87	.0435
Normative OC	91	27,505	.76	.0807	.76	.0733	.87	.0464	.87	.0417
Job involvement	466	153,755	.78	.0896	.76	.1041	.88	.0524	.87	.0620
Career commitment	159	44,694	.81	.0914	.81	.0989	.90	.0533	.90	.0516
Career salience	10	2,590	.71	.1006	.68	.1023	.84	.0601	.82	.0620
Career involvement	7	2,829	.74	.0472	.74	.0441	.86	.0272	.86	.0253
Professionalism	9	2,261	.73	.0615	.72	.0620	.85	.0371	.85	.0374
Affective OCC	20	13,969	.85	.0405	.87	.0389	.92	.0222	.93	.0211
Continuance OCC	13	5,154	.84	.0525	.83	.0512	.92	.0287	.91	.0216
Normative OCC	13	5,154	.85	.0651	.84	.0598	.92	.0354	.92	.0326
WE endorsement	19	20,357	.72	.0879	.75	.0719	.85	.0540	.86	.0440
PWE endorsement	33	8,053	.70	.1257	.67	.1264	.83	.0831	.81	.0832
WE	8	2,069	.75	.0756	.76	.0847	.86	.0435	.87	.0484
Work involvement	60	28,707	.77	.0864	.79	.0909	.88	.0499	.89	.0533
Union commitment	31	8,107	.87	.0572	.86	.0646	.93	.0308	.93	.0349
Loyalty	52	29,864	.88	.0464	.87	.0468	.94	.0251	.93	.0255
Responsibility	22	8,135	.72	.0790	.70	.0794	.85	.0476	.84	.0476
Willingness	21	6,195	.77	.0876	.78	.0737	.88	.0517	.88	.0432
Belief in unionism	19	8,539	.80	.1027	.84	.0783	.89	.0598	.91	.0429
Job satisfaction	949	434,613	.83	.0788	.83	.0761	.91	.0446	.91	.0429
Performance	159	33,337	.85	.0903	.85	.1008	.92	.0515	.92	.0582
Turnover	2	853	.85	.0071	.85	.0048	.92	.0038	.92	.0026
Turnover intent	296	107,878	.82	.0875	.81	.0808	.91	.0496	.90	.0459

Note. *k* = the number of reliability estimates used in meta-analysis; Square root reliability = square root of reliability estimates; Frequency = frequency weighted; Sample = sample size-weighted; OC = organizational commitment; OCC = occupational commitment; WE = work ethic; PWE = Protestant work ethic.

11 estimates, 5 were based on fewer than 5 samples. The correlations were high between forms of organizational and occupational commitment. The estimated true score correlation between affective and normative organizational commitment was .64, on the basis of 59 samples. The estimated true score correlation between job involvement and career salience was .63. The remaining two correlations greater than .60 were between subdimensions of union commitment. Thus, overall, the threat of concept redundancy does not appear to be serious among the commitment constructs listed in Table 1. The only exception seems to be that respondents may not be able to distinguish between organizational and occupational forms in reporting affective, normative, or continuance commitment.

These conclusions are also supported by an investigation of the pattern of correlations with outcome variables. We provide the meta-analytic results among the 24 commitment forms and the four outcome variables. The results of the meta-analyses are summarized in Tables 11 through 14.

The first point to note is that the different commitment forms had a similar pattern of correlations with outcome variables. All commitment forms had higher correlations with job satisfaction than with job performance. Correlations with turnover intentions were higher than they were with actual turnover. Another striking

feature in these tables is the unevenness in the number of samples investigating the different bivariate relations. The correlation between organizational commitment and outcomes appears to be the most frequently examined. Organizational commitment was correlated in 879 samples with job satisfaction, in 351 samples with turnover intent, in 185 samples with job performance, and in 105 samples with actual turnover. Conversely, some of the other commitment forms have not been as extensively investigated. This snapshot of the extant literature is useful in identifying future research needs.

The third noteworthy feature is the modest true score correlations reported in the cells. Even after we corrected for unreliability in the two measures, few forms of commitment correlated in the .30s or higher with the outcome variables (and, obviously, observed correlations were lower). To the extent that we had to use available measures of commitment forms (with all the attendant unreliability), the predictive power of individual commitment forms was low. This underscores the need for developing the multiple commitments approach. Given that an individual at work is nested within several forms, behavior in the workplace is certainly a function of several commitment concepts. We hope that the results reported here serve as a basis for the

Table 5
Correlations Among Organizational Commitment (OC) Subdimensions and Job Involvement

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	<i>ρ</i>	<i>SD_ρ</i>	95% CI
Attitudinal OC	Calculative OC	1	533	.42	—	.50	—	—
Attitudinal OC	Continuance OC	1	138	.51	—	.63	—	—
Calculative OC	Affective OC	3	1,072	.12	.2793	.14	.3269	-.19, .44
Calculative OC	Normative OC	3	432	.01	.0535	.02	.0000	-.05, .07
Affective OC	Continuance OC	163	59,591	.10	.1741	.13	.2086	.48, .54
Affective OC	Normative OC	59	19,571	.51	.1179	.64	.1310	.12, .18
Continuance OC	Normative OC	56	18,006	.15	.1206	.19	.1397	.12, .18
Job involvement	OC	142	47,856	.42	.1655	.52	.1911	.39, .45
Job involvement	Attitudinal OC	4	2,417	.30	.1394	.37	.1621	.16, .44
Job involvement	Calculative OC	5	842	.11	.0860	.13	.0480	.03, .19
Job involvement	Affective OC	22	6,100	.40	.2758	.50	.3328	.28, .52
Job involvement	Continuance OC	10	2,132	.11	.1372	.15	.1544	.02, .20
Job involvement	Normative OC	5	847	.40	.0312	.52	.0000	.37, .43

Note. A dash indicates there was only one estimate for a meta-analysis. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; *ρ* = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of *ρ*; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$.

development of a more comprehensive multiple commitments framework.

Discussion

Work commitment is an important area of study in the organizational sciences (Mowday, Porter, & Steers, 1982). Researchers

have explored a number of related commitment forms (Morrow, 1983, 1993). Previous studies examined the impact of various forms of work commitment on organizational outcomes (cf. Mathieu & Zajac, 1990; Morrow, 1983, 1993). The primary purpose of this study was to (a) cumulate the correlations found among each of the forms of work commitment to see which, if any,

Table 6
Correlations Among Job Involvement, Career Commitment, and Work Ethic (WE) Endorsement Variables

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	<i>ρ</i>	<i>SD_ρ</i>	95% CI
Job involvement	Career commitment	57	14,971	.35	.1902	.44	.2250	.30, .40
Job involvement	Career salience	10	2,274	.47	.1358	.63	.1579	.39, .55
Job involvement	Career involvement	2	912	.51	.0398	.68	.0000	.45, .57
Job involvement	Professionalism	1	325	.41	—	.55	—	—
Job involvement	Affective OCC	2	348	.55	.0500	.67	.0000	.48, .62
Affective OCC	Continuance OCC	6	11,217	.36	.1500	.43	.1736	.24, .48
Affective OCC	Normative OCC	5	2,177	.36	.0939	.43	.0966	.28, .44
Continuance OCC	Normative OCC	5	2,177	.31	.1091	.37	.1164	.21, .41
WE	PWE endorsement	4	641	.51	.0946	.72	.0666	.42, .60
PWE endorsement	Work involvement	9	3,436	.34	.0999	.46	.1083	.27, .41
WE endorsement	Job involvement	7	4,602	.37	.0619	.49	.0548	.32, .42
WE endorsement	Career commitment	3	1,165	.28	.0545	.36	.0165	.22, .34
WE endorsement	Career salience	1	563	.46	—	.65	—	—
WE endorsement	Career involvement	1	498	.21	—	.29	—	—
PWE endorsement	Job involvement	32	7,884	.30	.1063	.41	.1106	.26, .34
PWE endorsement	Career commitment	6	1,259	.18	.0599	.24	.0000	.13, .23
PWE endorsement	Career salience	3	1,467	.36	.1158	.51	.1413	.23, .49
WE	Job involvement	6	1,385	.23	.1532	.30	.1807	.11, .35
WE	Career commitment	1	389	.10	—	.13	—	—
Work involvement	Job involvement	40	22,085	.20	.3093	.26	.3916	.10, .30
Work involvement	Career commitment	6	1,998	.32	.0847	.40	.0792	.25, .39

Note. A dash indicates there was only one estimate for a meta-analysis. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; *ρ* = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of *ρ*; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OCC = occupational commitment; PWE = Protestant work ethic.

Table 7
Correlations Among Organizational Commitment (OC) and Career Commitments

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	<i>ρ</i>	<i>SD_ρ</i>	95% CI
OC	Career commitment	98	30,208	.35	.1550	.42	.1732	.32, .38
OC	Career salience	4	1,662	.30	.1237	.38	.1440	.18, .42
OC	Career involvement	2	912	.40	.0946	.51	.1042	.27, .53
OC	Professionalism	8	1,468	.26	.2178	.33	.2605	.11, .41
Attitudinal OC	Career commitment	1	122	.45	—	.54	—	—
Calculative OC	Career commitment	3	666	-.05	.2626	-.07	.3080	-.35, .25
Calculative OC	Career salience	2	141	-.04	.0734	-.05	.0000	-.14, .06
Affective OC	Career commitment	17	6,932	.34	.1532	.42	.1753	.27, .41
Affective OC	Professionalism	2	909	.13	.0708	.17	.0678	.03, .23
Affective OC	Affective OCC	14	6,984	.51	.0583	.61	.0505	.48, .54
Affective OC	Continuance OCC	3	1,267	.05	.0339	.07	.0000	.01, .09
Affective OC	Normative OCC	3	1,267	.28	.0521	.33	.0263	.22, .34
Continuance OC	Career commitment	6	1,528	-.07	.1073	-.09	.1095	-.16, .02
Continuance OC	Affective OCC	6	5,899	.03	.1076	.03	.1276	-.07, .13
Continuance OC	Continuance OCC	7	2,501	.53	.2783	.67	.3420	.32, .74
Continuance OC	Normative OCC	5	1,931	.16	.0321	.20	.0000	.13, .19
Normative OC	Career commitment	6	2,784	.26	.1369	.33	.1613	.15, .37
Normative OC	Career salience	2	141	.09	.1859	.13	.1947	-.17, .35
Normative OC	Professionalism	1	604	.16	—	.21	—	—
Normative OC	Affective OCC	3	1,267	.29	.0789	.36	.0770	.20, .38
Normative OC	Continuance OCC	3	1,267	.21	.0849	.26	.0861	.11, .31
Normative OC	Normative OCC	5	1,837	.75	.1315	.93	.1471	.63, .87

Note. A dash indicates there was only one estimate for a meta-analysis. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; *ρ* = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of *ρ*; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OCC = occupational commitment.

are intercorrelated and (b) determine the impact of work commitment forms on specific outcome variables (job satisfaction, job performance, turnover intentions, and turnover).

Three major findings were discerned. First, empirical research assessing the intercorrelations of the 24 commitment forms has been very uneven. There were no studies assessing 182 of the 276

bivariate relationships. This finding should spur researchers to conduct the needed empirical research.

Second, of the 94 estimated true score correlations, 84 were positive. This positive manifold of correlations suggests that there is a common underlying psychological construct of work commitment (Morrow, 1993) across the various postulated commitment

Table 8
Correlations Among Union Commitment, Job Involvement, and Career Commitment

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	<i>ρ</i>	<i>SD_ρ</i>	95% CI
Loyalty	Responsibility	25	10,799	.36	.2239	.45	.2724	.27, .45
Loyalty	Willingness	25	9,150	.51	.2290	.62	.2690	.42, .60
Loyalty	Belief	26	12,621	.55	.1887	.66	.2153	.48, .62
Responsibility	Willingness	22	7,908	.44	.1712	.59	.2157	.37, .51
Responsibility	Belief	20	7,517	.42	.2026	.56	.2557	.33, .51
Willingness	Belief	20	7,612	.40	.2156	.51	.2645	.31, .49
Union commitment	Job involvement	2	306	-.15	.5853	-.19	.6989	-.96, .66
Union commitment	Career commitment	3	378	.47	.1559	.56	.1597	.29, .65
Loyalty	Job involvement	4	2,016	.06	.0621	.08	.0519	.00, .12
Loyalty	Affective OCC	2	258	.30	.0800	.35	.0000	.19, .41
Willingness	Job involvement	1	297	.07	—	.09	—	—
Willingness	Affective OCC	2	258	.31	.0100	.38	.0000	.30, .32
Belief	Job involvement	2	406	.04	.0798	.05	.0476	-.07, .15

Note. Loyalty, responsibility, willingness, and belief are subdimensions of union commitment. A dash indicates there was only one estimate for a meta-analysis. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; *ρ* = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of *ρ*; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OCC = occupational commitment.

Table 9
Correlations of Organizational Commitment and Work Ethic Endorsement, Union, and Career Commitments

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	ρ	<i>SD_{\rho}</i>	95% CI
Org. commitment	WE endorsement	4	3,586	.33	.0658	.42	.0670	.26, .40
Org. commitment	PWE endorsement	14	3,315	.27	.1062	.35	.1065	.21, .33
Org. commitment	WE	3	969	.30	.0736	.38	.0617	.22, .38
Org. commitment	Work involvement	16	5,458	.34	.0832	.42	.0774	.30, .38
Org. commitment	Union commitment	22	5,461	.13	.2167	.15	.2398	.04, .22
Org. commitment	Loyalty	19	9,203	.16	.1433	.19	.1563	.10, .22
Org. commitment	Responsibility	9	11,670	-.03	.0381	-.04	.0352	-.05, -.01
Org. commitment	Willingness	7	1,278	.06	.0949	.07	.0728	-.01, .13
Org. commitment	Belief	8	1,532	.09	.2103	.01	.2387	-.06, .24

Note. Loyalty, responsibility, willingness, and belief are subdimensions of union commitment. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; ρ = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_{\rho}* = standard deviation of ρ ; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; Org. = organizational; WE = work ethic; PWE = Protestant work ethic.

concepts. Perhaps the only commitment forms that could be distinct from this general work commitment construct are union commitment and calculative and continuance commitment. There is no evidence of a positive relationship between union commitment and either job involvement or career commitment. Overall, these findings support Morrow's (1993) rationale for excluding union commitment from the work commitment taxonomy. Further, respondents do not seem to distinguish between organizational and occupational forms in reporting affective, normative, or calculative commitment. In addition, there is substantial overlap between affective and normative organizational commitments.

Finally, even though there is a positive manifold of correlations across commitment forms, the magnitude of the correlations is modest, which suggests that concept overlap neither is excessive nor results in redundancy (Morrow, 1993). In fact, only 1 of the 94 correlations was greater than .80, and only 11 were greater than .60, even after we disattenuated for measurement error. (See Morrow et al., 1991, for an extended discussion of concept redundancy in this area.)

There were some surprising findings when we correlated individual commitment forms with the outcome variables. Calculative organizational commitment was significantly correlated with job

Table 10
Correlations of Organizational Commitment (OC) Subdimensions With Work Ethic (WE) Endorsement and Union Commitments

Commitment Var 1	Commitment Var 2	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	ρ	<i>SD_{\rho}</i>	95% CI
Calculative OC	PWE endorsement	3	353	.03	.0384	.04	.0000	-.01, .07
Affective OC	WE endorsement	3	1,016	.27	.0420	.34	.0000	.22, .32
Affective OC	PWE endorsement	4	940	.08	.0176	.11	.0000	.06, .10
Affective OC	Work involvement	1	238	.41	—	.51	—	—
Continuance OC	PWE endorsement	3	591	.09	.0623	.13	.0000	.02, .16
Continuance OC	Work involvement	1	238	.05	—	.07	—	—
Normative OC	PWE endorsement	2	369	.14	.0383	.20	.0000	.09, .19
Normative OC	Work involvement	1	238	.33	—	.44	—	—
Affective OC	Union commitment	2	542	.28	.0150	.33	.0000	.26, .30
Affective OC	Loyalty	3	2,466	.21	.0418	.24	.0271	.16, .26
Affective OC	Responsibility	2	2,337	-.11	.0255	-.14	.0000	-.15, -.07
Affective OC	Willingness	2	177	.26	.0758	.32	.0000	.15, .37
Continuance OC	Loyalty	1	48	-.13	—	-.16	—	—
Continuance OC	Responsibility	1	48	-.04	—	-.05	—	—
Continuance OC	Willingness	1	48	-.13	—	-.17	—	—
Normative OC	Union commitment	1	176	-.18	—	-.22	—	—

Note. Loyalty, responsibility, willingness, and belief are subdimensions of union commitment. A dash indicates there was only one estimate for a meta-analysis. Var = variable; *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; ρ = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_{\rho}* = standard deviation of ρ ; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; PWE = Protestant work ethic.

Table 11
Correlations Between Different Commitment Forms and Job Satisfaction

Commitment variable correlated with job satisfaction	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	ρ	<i>SD_ρ</i>	95% CI	
Work commitment	9	2,001	.28	.2407	.34	.2809	.12,	.44
OC	879	490,624	.49	.1632	.59	.1856	.48,	.50
Attitudinal OC	15	13,608	.47	.1491	.56	.1709	.39,	.55
Calculative OC	11	2,298	.31	.1302	.37	.1345	.23,	.39
Affective OC	140	63,529	.50	.1389	.60	.1565	.48,	.52
Continuance OC	79	37,280	.09	.1899	.12	.2315	.05,	.13
Normative OC	45	16,280	.29	.1048	.36	.1126	.26,	.32
Job involvement	462	133,062	.28	.2093	.35	.2481	.26,	.30
Career commitment	105	30,460	.33	.1772	.40	.2027	.30,	.36
Career salience	5	869	.22	.0818	.29	.0429	.15,	.29
Career involvement	7	2,829	.21	.1535	.27	.1842	.10,	.32
Professionalism	7	1,332	.18	.1053	.24	.0991	.10,	.26
Affective OCC	9	9,649	.53	.1324	.63	.1505	.44,	.62
Continuance OCC	2	835	-.13	.0224	.15	.0000	-.16,	-.10
Normative OCC	2	835	.23	.0314	.28	.0000	.19,	.27
WE endorsement	16	48,867	.11	.0900	.15	.1129	.07,	.15
PWE endorsement	24	3,156	.17	.1236	.22	.1147	.12,	.22
WE	3	1,081	.15	.0234	.19	.0000	.12,	.18
Work involvement	36	15,932	.07	.1577	.08	.1858	.02,	.12
Union commitment	24	5,649	-.04	.2300	-.05	.2569	-.13,	.05
Loyalty	31	15,874	.11	.1064	.12	.1123	.07,	.15
Responsibility	8	1,852	-.13	.0584	-.17	.0000	-.17,	-.09
Willingness	12	3,277	.02	.0811	.03	.0667	-.02,	.07
Belief	9	2,087	-.03	.2204	-.04	.2566	-.17,	.11

Note. Loyalty, responsibility, willingness, and belief are subdimensions of union commitment. *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; ρ = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of ρ ; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OC = organizational commitment; OCC = occupational commitment; WE = work ethic; PWE = Protestant work ethic.

satisfaction ($\rho = .37$), but continuance organizational commitment was not ($\rho = .12$). Additionally, although the correlations with the remaining outcome variables were not significant for either calculative or continuance organizational commitment, the relations differed in magnitude and in direction for the two outcomes. For instance, although they were not significantly related, calculative organizational commitment was positively correlated with performance ($\rho = .17$). Continuance organizational commitment was negatively correlated with performance ($\rho = -.12$). In addition, although it was also not significant, the relation between calculative organizational commitment and turnover intent was strong ($\rho = -.38$), although it was weaker between continuance organizational commitment and turnover intent ($\rho = -.19$). It seems that the terms *calculative* and *continuance organizational commitment* might be measuring different constructs. The conceptual distinction between the two seems to be that continuance commitment is broader in scope, as it includes ease of finding another job. Future research might benefit from a more clear distinction between these terms.

The positive manifold of correlations did not, apparently, extend to union, calculative, and continuance commitment. These three commitment forms reflect a looser coupling of an individual with the workplace. One does not enter an occupation or an organization to join a particular union. Neither does one enter an occupation just for the calculative material benefits—and if one does, commitment levels are markedly different. This suggests that the

social identity of an individual in the workplace is primarily determined by the job, organization, and occupation.

It is also interesting to note that union commitment correlated more with career commitment than with job involvement or organizational commitment. Psychologists (e.g., Gordon et al., 1980; Stagner, 1954) have argued that individuals who are committed to their job and organization are likely to be committed to the union, as there are only two mechanisms by which employees can effect changes in the workplace—exit and voice. Unions are expected to provide the voice mechanism. This is reflected in the low positive correlations (.10s). However, given the protean nature of careers in recent years, individuals are more likely to change jobs and organizations but less likely to change occupations and careers. Thus, there is greater need for voice (less possibility of exit) in career and occupational issues. There is also a stronger career and occupational commitment–union commitment relation than job involvement and organizational commitment–union commitment relation.

Work ethic has been considered to be a broader concept than Protestant work ethic. The breadth of the construct is reflected in the correlations with outcome variables. Work ethic correlated .47 with job performance, whereas Protestant work ethic had a much smaller correlation. Perhaps this is also a reflection of the changing values in a globalized workforce. Future research incorporating cohort analyses will be informative. Although a positive manifold of correlations was found, it could be argued that the magnitude of the correlations was not high. Conversely, although the positive

Table 12
Correlations Between Different Commitment Forms and Job Performance

Commitment variable correlated with job performance	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	ρ	<i>SD_ρ</i>	95% CI
OC	185	42,354	.15	.1256	.17	.1250	.13, .17
Attitudinal OC	2	574	.07	.1030	.08	.0984	-.07, .21
Calculative OC	3	835	.15	.1228	.17	.1268	.01, .29
Affective OC	63	13,933	.22	.1683	.27	.1825	.18, .26
Continuance OC	33	7,151	-.09	.1787	-.12	.2047	-.15, -.03
Normative OC	17	3,930	.06	.0618	.08	.0000	.03, .09
Job involvement	85	21,618	.14	.1486	.18	.1639	.11, .17
Career commitment	16	3,226	.16	.0488	.19	.0000	.14, .18
Career salience	3	446	.01	.1046	.01	.0821	-.11, .13
Affective OCC	2	1,206	.06	.0100	.07	.0000	.05, .07
Continuance OCC	2	1,206	-.09	.0200	-.11	.0000	-.12, -.06
Normative OCC	2	1,206	-.04	.0150	-.04	.0000	-.06, -.02
PWE endorsement	5	856	-.01	.0504	-.01	.0000	-.05, .03
WE	2	60	.38	.2150	.47	.1755	.08, .68
Work involvement	2	461	.06	.0000	.07	.0000	.06, .06
Union commitment	1	114	.19	—	.22	—	—
Loyalty	1	74	-.01	—	-.01	—	—

Note. Loyalty is a subdimension of union commitment. A dash indicates there was only one estimate for a meta-analysis. *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; ρ = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of ρ ; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OC = organizational commitment; OCC = occupational commitment; PWE = Protestant work ethic; WE = work ethic.

manifold supports the presence of a general commitment (psychological) factor, the corrected correlations less than .60 also suggest that there is useful specific variance in the different commitment forms. In fact, this encouraging finding suggests that researchers can improve their psychological understanding of workplace behaviors with a multiple commitment approach.

There are several limitations in this work, the first of which is that most of the studies included in the meta-analysis used cross-sectional data. This means that we were only given a static snapshot of the relations among the variables of interest. Longitudinal studies, alternatively, present a dynamic view of how relations among variables change. Additional use of the temporal dimension

Table 13
Correlations Between Different Commitment Forms and Turnover

Commitment variable correlated with turnover	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	ρ	<i>SD_ρ</i>	95% CI
OC	105	39,508	-.19	.1078	-.23	.1117	-.21, -.17
Attitudinal OC	3	781	-.16	.0927	-.19	.0818	-.26, -.06
Affective OC	20	7,669	-.17	.1766	-.20	.2002	-.25, -.09
Continuance OC	15	8,039	-.20	.1362	-.25	.1608	-.27, -.13
Normative OC	6	2,293	-.13	.0731	-.16	.0646	-.19, -.07
Job involvement	26	8,713	-.13	.0964	-.16	.0973	-.17, -.09
Career commitment	16	3,676	-.05	.1274	-.06	.1303	-.11, .01
Professionalism	2	607	.03	.0000	.04	.0000	.03, .03
Affective OCC	1	478	-.14	—	-.17	—	—
Continuance OCC	1	478	-.08	—	-.10	—	—
Normative OCC	1	478	-.13	—	-.15	—	—
PWE endorsement	1	145	-.11	—	-.14	—	—
Work involvement	2	566	-.02	.0000	-.02	.0000	-.02, -.02
Union commitment	1	114	-.08	—	-.09	—	—

Note. A dash indicates there was only one estimate for a meta-analysis. *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; ρ = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of ρ ; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_r / \sqrt{k}$; OC = organizational commitment; OCC = occupational commitment; PWE = Protestant work ethic.

Table 14
Correlations Between Different Commitment Forms and Turnover Intentions

Commitment variable correlated with turnover intention	<i>k</i>	<i>n</i>	<i>M_r</i>	<i>SD_r</i>	<i>ρ</i>	<i>SD_ρ</i>	95% CI
Work commitment	1	141	-.08	—	-.10	—	—
OC	351	136,270	-.47	.1585	-.57	.1781	-.49, -.45
Attitudinal OC	8	6,532	-.41	.1104	-.49	.1226	-.49, -.33
Calculative OC	4	1,139	-.28	.2218	-.38	.2578	-.50, -.07
Affective OC	97	41,002	-.48	.1240	-.58	.1366	-.50, -.46
Continuance OC	48	17,770	-.15	.1521	-.19	.1801	-.19, -.11
Normative OC	34	12,793	-.29	.0733	-.37	.0640	-.31, -.27
Job involvement	103	40,262	-.24	.1178	-.30	.1312	-.27, -.22
Career commitment	51	15,469	-.24	.2188	-.29	.2564	-.30, -.18
Career salience	1	195	.02	—	.03	—	—
Career involvement	2	912	-.16	.0000	-.21	.0000	-.16, -.16
Professionalism	2	607	-.04	.1300	-.05	.1499	-.22, .14
Affective OCC	9	6,387	-.30	.1170	-.36	.1309	-.38, -.22
Continuance OCC	6	2,161	-.03	.1514	-.03	.1690	-.15, .09
Normative OCC	6	2,161	-.22	.1007	-.27	.1021	-.30, -.14
WE endorsement	6	4,478	-.21	.1230	-.27	.1503	-.31, -.11
PWE endorsement	5	860	-.08	.0742	-.10	.0000	-.15, -.01
Work involvement	7	3,191	-.17	.0568	-.21	.0389	-.21, -.13
Union commitment	1	1,167	-.04	—	-.05	—	—
Loyalty	3	1,344	-.05	.0381	-.06	.0000	-.09, .00
Responsibility	1	48	.08	—	.10	—	—
Willingness	2	177	-.11	.0222	-.14	.0000	-.14, -.08

Note. Loyalty, responsibility, willingness, and belief are subdimensions of union commitment. A dash indicates there was only one estimate for a meta-analysis. *k* = the number of correlations included in the analysis; *M_r* = sample size-weighted mean observed correlation; *SD_r* = sample size-weighted standard deviation of the mean observed correlation; *ρ* = the *M_r* that is corrected for unreliability in the two measures correlated; *SD_ρ* = standard deviation of *ρ*; 95% CI = 95% confidence interval around the mean observed correlation computed as $M_r \pm 1.96 * SD_{\rho} / \sqrt{k}$; OC = organizational commitment; OCC = occupational commitment; WE = work ethic; PWE = Protestant work ethic.

would enable us to test whether attitudinal commitment develops into continuance commitment or vice versa and what organizational actions could influence such developments. Such temporal analyses will shed light on how social identities are developed for individuals. Additionally, none of the studies included any experimental manipulation. Hence, that precluded inferences concerning cause-and-effect relations among the variables.

The generalizability of the results across cultures was also restricted, because a majority of studies used North American samples. Very few studies included samples from other continents. Research shows that people from different cultures might express different perspectives on the same topic (cf. Silverthorne, 2001). Hence, North American findings might not be generalizable to other cultures (Randall, 1993). Future research should take a cross-cultural look at work commitment.

These findings have several implications for practice. From a practical standpoint, employers should focus on maintaining and enhancing the work commitment of employees, because their level of commitment impacts their job satisfaction, performance, turnover intentions, and turnover. Given that workplace behavior is influenced by several commitment forms and that the fluid nature of the changing workplace mitigates the distinction across forms, better predictive power can be realized by the general work commitment construct (Morrow, 1993) devoid of concept redundancies. Multiple measures of the same commitment form increase the reliability of assessment but may not add to the predictive power. The use of the general work commitment construct on the basis of

the intercorrelations reported here can guide efforts for better prediction. We hope that this integrative review provides some guidelines along this path.

References

- Aiken, L., & West, S. G. (1993). Detecting interactions in multiple regression: Measurement error, power, and design considerations. *The Score, American Psychological Association Division 5 Newsletter*, 16, 7.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.
- Allen, T. D., & Russell, J. E. (1999). Parental leave of absence: Some not so family-friendly implications. *Journal of Applied Social Psychology*, 29, 166-191.
- Alutto, J. A., Hrebiniak, L. G., & Alonso, R. C. (1973). On operationalizing the concept of commitment. *Social Forces*, 51, 448-454.
- Anderson, C. B. (1998). The experience of growing up in a minister's home and the religious commitment of the adult child of a minister. *Pastoral Psychology*, 46, 393-411.
- Anderson, N., Ones, D. S., Sinangil, H., & Viswesvaran, C. (Eds.). (2001). *Handbook of industrial, work and organizational psychology: Personnel psychology*. Thousand Oaks, CA: Sage.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being*. New York: Plenum Press.
- Aranya, N., Pollack, J., & Amernic, J. (1981). An examination of professional commitment in public accounting. *Accounting, Organizations and Society*, 6, 271-280.

- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66, 32–42.
- Becker, T. E. (1992). Forms and bases of commitment: Are they distinctions worth making? *Academy of Management Journal*, 35, 232–244.
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. C. (1996). Forms and bases of employee commitment: Implications for job performance. *Academy of Management Journal*, 39, 464–482.
- Behrman, D. N., & Perreault, W. D., Jr. (1982). Measuring the performance of industrial salespersons. *Journal of Business Research*, 10, 355–370.
- Ben-Sira, Z. (1986). The plight of primary medical care: The problematics of “committedness” to the practice. *Social Science and Medicine*, 22, 699–712.
- Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58, 277–288.
- Blau, G. J. (1988). Further exploring the meaning and measurement of career commitment. *Journal of Vocational Behavior*, 32, 284–297.
- Blau, G. J., & Boal, K. B. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *Academy of Management Review*, 12, 288–300.
- Blau, G. J., Paul, A., & John, N. (1993). On developing a general index of work commitment. *Journal of Vocational Behavior*, 42, 298–314.
- Blood, M. R. (1969). Work values and job satisfaction. *Journal of Applied Psychology*, 53, 456–459.
- Bluedorn, A. C. (1982). A unified model of turnover from organizations. *Human Relations*, 35, 135–153.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307–311.
- Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, 120, 235–255.
- Buchholz, R. A. (1976). Measurement of beliefs. *Human Relations*, 29, 1177–1188.
- Buchholz, R. A. (1977). The belief structure of managers relative to work concepts measured by a factor analytic model. *Personnel Psychology*, 30, 567–587.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor.
- Cammann, C., Fichman, M., Jenkins, G. D., Jr., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E. E. Lawler, P. H. Mirvis, & C. Cammann (Eds.), *Assessing organizational change: A guide to methods, measures, and practices* (pp. 71–138). New York: Wiley.
- Churchill, G. A., Ford, N. M., & Walker, O. C. (1974). Measuring the job satisfaction of industrial salesmen. *Journal of Marketing Research*, 11, 254–260.
- Cohen, A. (1993). Work commitment in relation to withdrawal intentions and union effectiveness. *Journal of Business Research*, 26, 75–90.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Hillsdale, NJ: Erlbaum.
- Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist*, 49, 997–1003.
- Colarelli, S. M. (1984). Methods of communication and mediating processes in realistic job previews. *Journal of Applied Psychology*, 69, 633–642.
- Colarelli, S. M., & Bishop, R. C. (1990). Career commitment: Functions, correlates, and management. *Group and Organizational Studies*, 15, 158–176.
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *The experience of work*. New York: Academic Press.
- Cook, J. D., & Wall, T. D. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfillment. *Journal of Occupational Psychology*, 53, 39–52.
- Cooper, H., & Hedges, L. V. (Eds.). (1994). *The handbook of research synthesis*. New York: Russell Sage Foundation.
- Dailey, R. C., & Morgan, C. P. (1978). Personal characteristics and job involvement as antecedents of boundary spanning behaviour: A path analysis. *Journal of Management Studies*, 15, 330–339.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34, 555–590.
- DeCotiis, T. A., & Summers, T. P. (1987). A path analysis of a model of antecedents and consequences of organizational commitment. *Human Relations*, 40, 445–470.
- Dickson, J. W., & Buchholz, R. A. (1979). Differences in beliefs about work between managers and blue-collar workers. *Journal of Management Studies*, 16, 235–251.
- Donovan, J. J., & Radosevich, D. J. (1998). The moderating role of goal commitment on the goal difficulty–performance relationship: A meta-analytic review and critical analysis. *Journal of Applied Psychology*, 83, 308–315.
- Drasgow, F., & Miller, H. E. (1982). Psychometric and substantive issues in scale construction and validation. *Journal of Applied Psychology*, 67, 268–279.
- Dubin, R. (1956). Industrial workers’ worlds: A study of the “central life interests” of industrial workers. *Social Problems*, 3, 131–142.
- Dunham, R. B., Smith, F. J., & Blackburn, R. S. (1977). Validation of the Index of Organizational Reactions with the JDI, the MSQ, and Faces Scales. *Academy of Management Journal*, 20, 420–432.
- Elfering, A., Semmer, N. K., & Kalin, W. (2000). Stability and change in job satisfaction at the transition from vocational training into “real work.” *Swiss Journal of Psychology*, 59, 256–271.
- Farrell, D., & Rusbult, C. E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. *Organizational Behavior and Human Performance*, 27, 78–95.
- Fullager, C. (1986). A factor analytic study on the validity of a union commitment scale. *Journal of Applied Psychology*, 71, 129–136.
- Furnham, A. (1990). A content, correlational, and factor analytic study of seven questionnaire measures of the Protestant work ethic. *Human Relations*, 43, 383–399.
- Furnham, A. (1997). The relationship between work and economic values. *Journal of Economic Psychology*, 18, 1–14.
- Gade, P. A., Tiggle, R. B., & Schumm, W. R. (2003). The measurement and consequences of military organizational commitment in soldiers and spouses. *Military Psychology*, 15, 191–207.
- Ganster, D. C., Fusilier, M. R., & Mayes, B. T. (1986). Role of social support in the experience of stress at work. *Journal of Applied Psychology*, 71, 102–110.
- Gordon, M. E., & Ladd, R. (1990). Dual allegiance: Renewal, recommendations, and recantation. *Personnel Psychology*, 43, 37–69.
- Gordon, M. E., Philpot, J. W., Burt, R. E., Thompson, C. A., & Spiller, W. E. (1980). Commitment to the union: Development of a measure and an examination of its correlates. *Journal of Applied Psychology*, 65, 479–499.
- Gould, S. (1979). Characteristics of career planners in upwardly mobile occupations. *Academy of Management Journal*, 22, 539–550.
- Gouldner, A. W. (1957). Cosmopolitans and locals: Toward an analysis of latent social roles. *Administrative Science Quarterly*, 2, 281–306.
- Greenhaus, J. H. (1971). An investigation of the role of career salience in vocational behavior. *Journal of Vocational Behavior*, 1, 209–216.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33, 64–86.
- Greer, C. R., & Stephens, G. K. (2001). Escalation of commitment: A comparison of differences between Mexican and US decision makers. *Journal of Management*, 27, 51–78.

- Grover, S. L. (1993). Why professionals lie: The impact of professional role conflict on reporting accuracy. *Organizational Behavior and Human Decision Processes*, 55, 251–272.
- Guimond, S. (1995). Encounter and metamorphosis: The impact of military socialisation on professional values. *Applied Psychology: An International Review*, 44, 251–275.
- Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology*, 55, 259–286.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 159–170.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison Wesley.
- Hall, D. T., & Lawler, E. E. (1970). Job characteristics and pressures and the organizational integration of professionals. *Administrative Science Quarterly*, 15, 271–281.
- Hall, R. H. (1968). Professionalization and bureaucratization. *American Sociological Review*, 33, 92–104.
- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior*, 37, 60–78.
- Hanisch, K. A., & Hulin, C. L. (1991). General attitudes and organizational withdrawal: An evaluation of a causal model. *Journal of Vocational Behavior*, 39, 110–128.
- Hatfield, J. D., Robinson, R. B., & Huseman, R. C. (1985). An empirical evaluation of a test for assessing job satisfaction. *Psychological Reports*, 56, 39–45.
- Heneman, H. G., & Schwab, D. P. (1985). Pay satisfaction: Its multidimensional nature and measurement. *International Journal of Psychology*, 20, 129–141.
- Higgins, C. A., Duxbury, L. E., & Irving, R. H. (1992). Work–family conflict in the dual-career family. *Organizational Behavior and Human Decision Processes*, 51, 51–75.
- Hoppock, R. (1935). *Job satisfaction*. New York: Harper.
- Hrebiniak, L. G., & Alutto, J. A. (1972). Personal and role-related factors in the development of organizational commitment. *Administrative Science Quarterly*, 17, 555–573.
- Hunter, J. E., & Schmidt, F. L. (1990). *Methods of meta-analysis: Correcting error and bias in research findings*. Newbury Park, CA: Sage.
- Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings* (2nd ed.). Newbury Park, CA: Sage.
- Indiresan, J. (1975). Multivariate analysis of factors affecting the job satisfaction of engineering teachers. *Indian Journal of Psychometry and Education*, 6, 16–27.
- Ironson, G. H., Smith, P. C., Brannick, M. T., & Gibson, W. M. (1989). Construction of a Job in General Scale: A comparison of global, composite, and specific measures. *Journal of Applied Psychology*, 74, 193–200.
- Irving, P. G., Coleman, D. F., & Cooper, C. L. (1997). Further assessments of a three component model of occupational commitment: Generalizability and differences across occupations. *Journal of Applied Psychology*, 82, 444–452.
- Jackson, P. R., Stafford, E. M., Banks, M. H., & Warr, P. B. (1983). Unemployment and psychological distress in young people: The moderating role of employment commitment. *Journal of Applied Psychology*, 68, 525–535.
- Jorde-Bloom, P. (1985). *The Early Childhood Job Satisfaction Survey*. Unpublished manuscript, National College of Education, Evanston, Illinois.
- Kanungo, R. N. (1979). The concepts of alienation and involvement revisited. *Psychological Bulletin*, 86, 119–138.
- Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67, 341–349.
- Kanungo, R. N., Gorn, G. J., & Dauderis, H. J. (1976). Motivational orientation of Canadian anglophone and francophone managers. *Canadian Journal of Behavioural Science*, 8, 107–121.
- Kanungo, R. N., Misra, S. B., & Dayal, I. (1975). Relationship of job involvement to perceived importance and satisfaction of employee needs. *International Review of Applied Psychology*, 24, 49–59.
- Kim, W. C., & Mauborgne, R. A. (1993). Procedural justice, attitudes, and subsidiary top management compliance with multinationals' corporate strategic decisions. *Academy of Management Journal*, 36, 502–526.
- Ko, J., Price, J. L., & Mueller, C. W. (1997). Assessment of Meyer and Allen's three-component model of organizational commitment in South Korea. *Journal of Applied Psychology*, 82, 961–973.
- Krandsdorff, A. (1997). First organizational memory lapse. *Workforce*, 76, 34–36.
- Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology*, 8, 65–77.
- Lam, P., Foong, Y. Y., & Moo, S. N. (1995). Work life, career commitment, and job satisfaction as antecedents of career withdrawal cognition among teacher interns. *Journal of Research and Development in Education*, 28, 230–236.
- Landau, J., & Hammer, T. H. (1986). Clerical employees' perceptions of intraorganizational career opportunities. *Academy of Management Journal*, 29, 385–404.
- Lawler, E. E., & Hall, D. T. (1970). Relationships of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, 54, 305–312.
- Lee, K., Carswell, J. J., & Allen, N. J. (2000). A meta-analytic review of occupational commitment: Relations with person- and work-related variables. *Journal of Applied Psychology*, 85, 799–811.
- Lodahl, T. M., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49, 24–33.
- Lyons, T. F. (1971). Role clarity, need for clarity, satisfaction, tension, and withdrawal. *Organizational Behavior and Human Decision Processes*, 6, 99–110.
- Mael, F. (1988). *Organizational identification: Construct redefinition and a field application with organizational alumni*. Unpublished doctoral dissertation, Wayne State University, Detroit, Michigan.
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13, 103–123.
- Mathieu, J. E. (1988). A causal model of organizational commitment in a military training environment. *Journal of Vocational Behavior*, 32, 321–335.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108, 171–194.
- McNichols, C. W., Stahl, M. J., & Manley, T. R. (1978). A validation of Hoppock's job satisfaction measure. *Academy of Management Journal*, 21, 737–742.
- Meyer, J. P., & Allen, N. J. (1984). Testing the "side-bet theory" of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, 69, 372–378.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61–89.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research and applications*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology*, 75, 710–720.
- Meyer, J. P., Allen, N. J., & Smith, K. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538–551.

- Mirels, H. L., & Garrett, J. B. (1971). The Protestant ethic as a personality variable. *Journal of Consulting and Clinical Psychology*, 36, 40–44.
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62, 237–240.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 493–522.
- Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, 63, 408–414.
- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. *Academy of Management Review*, 8, 486–500.
- Morrow, P. C. (1993). *The theory and measurement of work commitment*. Greenwich, CT: JAI Press.
- Morrow, P. C., Eastman, K., & McElroy, J. C. (1991). Concept redundancy and rater naivety in organizational research. *Journal of Applied Social Psychology*, 21, 219–232.
- Morrow, P. C., & Goetz, J. F., Jr. (1988). Professionalism as a form of work commitment. *Journal of Vocational Behavior*, 32, 92–111.
- Mowday, R. T., Porter, L. M., & Steers, R. M. (1982). *Employee-organization linkages*. New York: Academic Press.
- Mowday, R. T., Steers, R. M., & Porter, L. M. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224–247.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71, 492–499.
- Patchen, M. (1970). *Participation, achievement, and involvement on the job*. Englewood Cliffs, NJ: Prentice Hall.
- Pestonjee, D. M. (1973). *Organizational structures and job attitudes*. Calcutta, India: Minerva Associates.
- Porter, L. W., Crampon, W. J., & Smith, F. J. (1976). Organizational commitment and managerial turnover: A longitudinal study. *Organizational Behavior and Human Decision Processes*, 15, 87–98.
- Porter, L. W., & Smith, F. J. (1970). *The etiology of organizational commitment*. Unpublished manuscript, University of California, Irvine.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603–609.
- Putti, J. M., Aryee, S., & Liang, T. K. (1989). Work values and organizational commitment: A study in the Asian context. *Human Relations*, 42, 275–288.
- Quinn, R. P., & Shepard, L. J. (1974). *The 1972–73 Quality of Employment Survey: Descriptive statistics, with comparison data from the 1969–70 Survey of Working Conditions*. Ann Arbor: Institute for Social Research, University of Michigan.
- Quinn, R. P., & Staines, G. L. (1979). *The 1977 Quality of Employment Survey*. Ann Arbor: Institute for Social Research, University of Michigan.
- Randall, D. M. (1993). Cross-cultural research on organizational commitment: A review and application of Hofstede's Value Survey Module. *Journal of Business Research*, 26, 91–110.
- Regoli, R. M., & Poole, E. D. (1980). Police professionalism and role conflict: A comparison of rural and urban departments. *Human Relations*, 33, 241–252.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. London: Sage.
- Roznowski, M. (1989). Examination of the measurement properties of the Job Descriptive Index with experimental items. *Journal of Applied Psychology*, 74, 805–814.
- Saleh, S., & Hosek, J. (1976). Job involvement: Concepts and measurements. *Academy of Management Journal*, 19, 213–224.
- Schmidt, F. L. (1992). What do data really mean? Research findings, meta-analysis, and cumulative knowledge in psychology. *American Psychologist*, 47, 1173–1181.
- Schmidt, F. L., & Hunter, J. E. (1997). Eight common but false objections to the discontinuation of significance testing in the analysis of research data. In L. Harlow, S. Mulaik, & J. Steiger (Eds.), *What if there were no significance tests?* (pp. 37–64). Hillsdale, NJ: Erlbaum.
- Seashore, S. E., Lawler, E. E., Mirvis, P., & Cammann, C. (Eds.). (1982). *Observing and measuring organizational change: A guide to field practice*. New York: Wiley.
- Shore, L. M., & Martin, H. J. (1989). Job satisfaction and organizational commitment in relation to work performance and turnover intentions. *Human Relations*, 42, 625–638.
- Shore, L. M., Tetrick, L. E., Sinclair, R. R., & Newton, L. A. (1994). Validation of a measure of perceived union support. *Journal of Applied Psychology*, 79, 971–977.
- Silverthorne, C. (2001). Leadership effectiveness and personality: A cross cultural evaluation. *Personality and Individual Differences*, 30, 303–309.
- Singh, V., & Vinnicombe, S. (2000). What does commitment really mean? *Personnel Review*, 29, 228–258.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes*. Chicago: Rand McNally.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage.
- Sprecher, S., Metts, S., Burleson, B., Hatfield, E., & Thompson, A. (1995). Domains of expressive interaction in intimate relationships: Associations with satisfaction and commitment. *Family Relations*, 44, 203–210.
- Stagner, R. (1954). Dual allegiance as a problem of modern society. *Personnel Psychology*, 7, 41–46.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly*, 22, 46–56.
- Taylor, J. C., & Bowers, D. G. (1972). *Survey of Organizations: A machine scored standardized questionnaire instrument*. Ann Arbor: Institute for Social Research, University of Michigan.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259–293.
- Ting, Y. (1996). Analysis of job satisfaction of the federal white-collar work force: Findings from the Survey of Federal Employees. *American Review of Public Administration*, 26, 439–456.
- Ting, Y. (1997). Determinants of job satisfaction of federal government employees. *Public Personnel Management*, 26, 313–334.
- Van Scotter, J. R., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facts of contextual performance. *Journal of Applied Psychology*, 81, 525–531.
- Viswesvaran, C., & Ones, D. S. (1995). Theory testing: Combining psychometric meta-analysis and structural equations modeling. *Personnel Psychology*, 48, 865–885.
- Viswesvaran, C., Ones, D. S., & Schmidt, F. L. (1996). Comparative analysis of the reliability of job performance ratings. *Journal of Applied Psychology*, 81, 557–574.
- Viswesvaran, C., Schmidt, F. L., & Ones, D. S. (2002). The moderating influence of job performance dimensions on convergence of supervisory and peer ratings of job performance: Unconfounding construct-level convergence and rating difficulty. *Journal of Applied Psychology*, 87, 345–354.
- Wallace, J. E. (1993). Professional and organizational commitment: Compatible or incompatible? *Journal of Vocational Behavior*, 42, 333–349.

- Wanberg, C. R., Kanfer, R., & Rotundo, M. (1999). Unemployed individuals: Motives, job-search competencies, and job-search constraints as predictors of job seeking and reemployment. *Journal of Applied Psychology, 84*, 897-910.
- Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52*, 129-148.
- Weber, M. (1905). *The Protestant ethic and the spirit of capitalism*. New York: Scribner.
- Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire* (Minnesota Studies in Vocational Rehabilitation, No. 22). Minneapolis: Industrial Relations Center, University of Minnesota.
- Wiener, Y., & Vardi, Y. (1980). Relationships between job, organization, and career commitments and work outcomes: An integrative approach. *Organizational Behavior and Human Performance, 26*, 81-96.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*, 601-617.
- Zellars, K. L., & Kacmar, K. M. (1999). The influence of individual differences on reactions to co-workers' ingratiation behaviors. *Journal of Managerial Issues, 11*, 234-248.

Received February 28, 2003

Revision received September 2, 2004

Accepted September 20, 2004 ■



AMERICAN PSYCHOLOGICAL ASSOCIATION SUBSCRIPTION CLAIMS INFORMATION

Today's Date: _____

We provide this form to assist members, institutions, and nonmember individuals with any subscription problems. With the appropriate information we can begin a resolution. If you use the services of an agent, please do **NOT** duplicate claims through them and directly to us. **PLEASE PRINT CLEARLY AND IN INK IF POSSIBLE.**

PRINT FULL NAME OR KEY NAME OF INSTITUTION _____

MEMBER OR CUSTOMER NUMBER (MAY BE FOUND ON ANY PAST ISSUE LABEL) _____

ADDRESS _____

DATE YOUR ORDER WAS MAILED (OR PHONED) _____

CITY _____

STATE/COUNTRY _____

ZIP _____

____ PREPAID ____ CHECK ____ CHARGE

CHECK/CARD CLEARED DATE: _____

YOUR NAME AND PHONE NUMBER _____

(If possible, send a copy, front and back, of your cancelled check to help us in our research of your claim.)

ISSUES: ____ MISSING ____ DAMAGED

TITLE _____

VOLUME OR YEAR _____

NUMBER OR MONTH _____

Thank you. Once a claim is received and resolved, delivery of replacement issues routinely takes 4-6 weeks.

(TO BE FILLED OUT BY APA STAFF)

DATE RECEIVED: _____

DATE OF ACTION: _____

ACTION TAKEN: _____

INV. NO. & DATE: _____

STAFF NAME: _____

LABEL NO. & DATE: _____

Send this form to APA Subscription Claims, 750 First Street, NE, Washington, DC 20002-4242

PLEASE DO NOT REMOVE. A PHOTOCOPY MAY BE USED.